DOCUMENT RESUME

ED 424 407 CE 077 345

AUTHOR	Holmes, Patricia A.; Rahn, Mikala L.
TITLE	Resource Guide to Educational Standards.
INSTITUTION	National Center for Research in Vocational Education, Berkeley, CA.
SPONS AGENCY	Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE	1998-09-00
NOTE	24p.
CONTRACT	V051A30004-98A; V051A30003-98A
AVAILABLE FROM	NCRVE Materials Distribution Service, Horrabin Hall 46, Western Illinois University, Macomb, IL 61455; phone: 800-637-7652 (Toll Free); e-mail: NCRVE-MDS@wiu.edu (order no. MDS-1205, $3.24).
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Academic Standards; Educational Certificates; Elementary Secondary Education; Higher Education; *Job Skills; Organizations (Groups); Resources; *Student Certification; Student Organizations; *Teacher Certification; *Vocational Education

ABSTRACT

This document is a guide to resources supporting the development of educational standards for students. Section 1, Industry Skill Standards, describes and provides contact information of resources on the efforts of the National Skill Standards Board to develop industry skill standards for all sectors of the American economy. The section addresses these topics: the board's current efforts in the development of voluntary partnerships in 16 broad economic sectors; grants to industry and research groups to further develop and demonstrate how skill standards would be used in specific industries and occupations; and building linkages with both academic standards and school-to-work efforts. Section 2, Academic Skill Standards, provides names and contact information for seven national organizations in the process of developing and adopting national standards in academic subject areas. Section 3, Other Standards Resources, provides names, contact information, and brief descriptions of 20 organizations involved in developing standards, both academic and vocational. Section 4, Standards for Teachers, discusses and provides contact information for three organizations that have developed standards for teacher licensing, advanced certification, and teacher education program accreditation. Section 5, Vocational Student Organizations (VSOs), describes and provides contact information on seven VSOs. Section 6 contains 11 references. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 424 407

NCRVE

National Center for Research in
Vocational Education

University of California, Berkeley

RESOURCE GUIDE TO EDUCATIONAL STANDARDS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
This document has been reproduced as
received from the person or organization
originating it.
☐ Minor changes have been made to
improve reproduction quality.
• Points of view or opinions stated in this
document do not necessarily represent
official OERI position or policy.

CE 077345

Supported by
the Office of Vocational and Adult Education,
U.S. Department of Education

This publication is available from the:

National Center for Research in Vocational Education
Materials Distribution Service
Western Illinois University
46 Horrabin Hall
Macomb, IL 61455

800-637-7652 (Toll Free)

RESOURCE GUIDE TO EDUCATIONAL STANDARDS

Patricia A. Holmes
Mikala L. Rahn

Public Works

National Center for Research in Vocational Education
Graduate School of Education
University of California at Berkeley
2030 Addison Street, Suite 500
Berkeley, CA 94720-1674

Supported by
The Office of Vocational and Adult Education,
U.S. Department of Education

September 1998

MDS-1205

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education
Grant Number:	V051A30003-98A/V051A30004-98A
Act under which Funds Administered:	Carl D. Perkins Vocational Education Act P.L. 98-524
Source of Grant:	Office of Vocational and Adult Education U.S. Department of Education Washington, DC 20202
Grantee:	The Regents of the University of California c/o National Center for Research in Vocational Education 2030 Addison Street, Suite 500 Berkeley, CA 94720-1674
Director:	David Stern
Percent of Total Grant Financed by Federal Money:	100%
Dollar Amount of Federal Funds for Grant:	$4,500,000

Disclaimer:

This publication was prepared pursuant to a grant with the Office of Vocational and Adult Education, U.S. Department of Education. Grantees undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.

Discrimination:

Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." Therefore, the National Center for Research in Vocational Education project, like every program or activity receiving financial assistance from the U.S. Department of Education, must be operated in compliance with these laws.

TABLE OF CONTENTS

Resource Guide to Educational Standards 1
Section 1: Industry Skill Standards 3
Section 2: Academic Skill Standards 10
Section 3: Other Standards Resources 11
Section 4: Standards for Teachers 15
Section 5: Vocational Student Organizations 16
Section 6: Bibliography 18

RESOURCE GUIDE TO EDUCATIONAL STANDARDS

This document has been prepared by the National Center for Research in Vocational Education (NCRVE) as a guide to resources supporting the development of educational standards for students. Standards for what all students should know and be able to do have become a hallmark of educational reform that spans knowledge of academic subject areas, general workforce preparation competencies, and more specific industry and occupational qualifications.

Beginning in the 1980s, evidence that American students lagged far behind the academic performance and workforce preparation of students in other nations generated a national clamor for change that resulted in sustained efforts to improve public education at the local, state, and national levels. Despite the wide range of approaches to improve education attempted during this time, there was little indication that student learning had improved substantially, if at all, in national assessments taken after this initial wave of education reform. Studies of the reform efforts indicated that most states had attempted to improve student performance by mandating additional rules and regulations on top of an already overburdened system. Legislatures increased the number of school days, required additional academic courses for graduation, and tightened licensing requirements for teachers. The introduction of various pieces of legislation essentially mandated regulatory change rather than supporting instructional and curricular improvements that were directly tied to improving the learning of all students.

In the early 1990s, the lack of improvement in student achievement fueled a growing consensus around the need for change at all levels of the educational delivery system and for developing a common understanding of the level of academic achievement that students would need in an advanced, technology driven society. This reform movement was termed 'systemic' and is an approach to reform that centers around setting higher standards for students, teachers, and schools and developing accountability systems to monitor whether these standards are being met. Another element of 'systemic' reform is to allow schools some freedom from rules and regulations that can hamper principals, teachers, and other school staff from focusing on innovative instructional strategies and developing challenging curriculum to meet the individual needs of students.

Since the introduction of 'systemic' reform, standards for students have been introduced by a wide range of organizations and all states except one. These organizations include national subject matter specialists such as the National Council of Teachers of Math, national commissions appointed by the federal government such as the Secretary's Commission on Achieving Necessary Skills (SCANS), and industry groups like the Council on Hotel, Restaurant, and Institutional Education's hospitality and tourism standards. This document serves as a resource guide to the wide range of efforts currently under way to define the essential skills and competencies that Americans will need now and in the future. It includes:

- Section 1–Industry Skill Standards. Resources on the efforts of the National Skill Standards Board to develop industry skill standards for all sectors of the American economy.
- Section 2–Academic Skill Standards. National organizations in the process of developing and adopting national standards in academic subject areas.
- Section 3–Other Standards Resources. Organizations involved in developing standards, both academic and vocational.
- Section 4–Standards for Teachers. Organizations that have developed standards for teacher licensing, advanced certification, and teacher education program accreditation.
- Section 5–Vocational Student Organizations. Organizations such as VICA, HOSA, and others.
- Section 6–Bibliography.

This document is available on the NCRVE web site at **http://ncrve.berkeley.edu**. Other vocational sources can also be found through the Office of Adult and Vocational Education web site (**http://www.ed.gov/offices/OVAE**).

Section 1
INDUSTRY SKILL STANDARDS

National Skill Standards Board **http://www.nssb.org**
Edie West, Executive Director
1441 L Street, NW, Suite 9000, Washington, DC 20005-3512
phone: 202-254-8628, fax: 202-254-8646

In 1992 and 1993, the U.S. Department of Labor entered into agreements with 22 organizations representing various industries to develop pilot projects demonstrating an approach to setting voluntary standards. The National Skill Standards Act of 1994 established the National Skill Standards Board as a coordinating board for developing a national voluntary skill standards system. The Board includes 28 independent representatives of business, labor, and education and as well as civic leaders from the Commerce Department, the Department of Labor, and the Department of Education. The Board's current efforts include the development of *voluntary partnerships* in 16 broad economic sectors (three have been sponsored to date), *grants to industry and research groups* to further develop and demonstrate how skill standards would be used in specific industries and occupations (nine grants were awarded in 1996 to twelve groups), and *building linkages* with both academic standards and school-to-work efforts.

Voluntary Partnerships–NSSB Contact: Sally Waldron

The NSSB will sponsor voluntary partnerships in each of 16 economic sectors. The Board has begun its work in three of these sectors: Manufacturing, Installation, and Repair; Wholesale/Retail Sales; and Business and Administrative Services.

NSSB Economic Sectors:		
• Agricultural Production and Natural Resource Management	• Mining and Extracting Operations	• Construction Operations
• Manufacturing, Installation, and Repair	• Energy and Utility Operations	• Transportation Operations
• Communications	• Wholesale/Retail Sales	• Hospitality and Tourism Services
• Financial Services	• Health and Social Services	• Public Administration, Legal, and Protective Services
• Education and Training Services	• Business and Administrative Services	• Property Management and Building Maintenance Services
• Research, Development and Technical Services		

Grants to Industry and Research Groups–Project Contacts Listed Below

Following up on the work of the initial 22 organizations funded in 1992 and 1993, the NSSB awarded nine grants to 12 industry and research groups to further develop skill standards in specific industries and occupations. These grants support efforts to test how standards might be implemented in the workplace, develop guidelines for assessment and certification, assist in the development of curriculum and teaching guidelines for the standards, and build partnerships among constituencies for implementation of a voluntary skill standard system. (full text of industry standards in all 22 areas and descriptions of each project are available on the NSSB web site)

Bioscience (EDC in collaboration with the National Future Farmers of America Foundation)
Judith Leff, Senior Project Director
Education Development Center (EDC), 55 Chapel Street, Newton, MA 02158
phone: 617-969-7100, fax: 617-332-4318, email: judyl@edc.org

Health Care
Sri Ananda, Project Director
WestEd, 730 Harrison Street, San Francisco, CA 94107-1242
phone: 415-241-2712, fax: 415-241-2702, email: sananda@fwl.org

Human Services
Marianne Taylor, Project Director
Human Services Research Institute (HSRI), 2336 Massachusetts Avenue
Cambridge, MA 02140
phone: 617-876-0426, fax: 617-492-7401, email: marianne@hsri.org

Chemical Process
Kenneth Chapman, Head of Technicians Resources/Education
American Chemical Society (ACS), 1155 16th Street, NW, Washington, DC 20036
phone: 202-872-8734, fax: 202-872-8068, email: kmc97@acs.org

Heavy Highway Construction
John Tippie, Associate Director for Western U.S. & Canada
Laborers-AGC Education and Training Fund, P.O. Box 479, 27055 Ohio Avenue
Kingston, WA 98346
phone: 360-297-4152, fax: 360-297-3368, email: 71112.1275@compuserve.com

Photonics (CORD and the Electronics Industries Foundation/Electronics Industries Association)
Darrell Hull, Project Director
Center for Occupational Research and Development (CORD)
601 Lake Air Drive, Waco, TX 76710
phone: 817-772-8756 or 800-972-2766, email: dhull@cord.org

Electronics
Andrea Fiorelli, Grant Project Manager, Center for Workforce Excellence, American Electronics Association
5201 Great America Parkway, Box 54990, Santa Clara, CA 95056
phone: 800-284-4232 or 408-987-4241 (direct line), email: andrea_fiorelli@aeanet.org
or Pat Hill Hubbard, Senior VP for Executive Development (408-987-4242)

Hospitality & Tourism
Susan Dowler, Project Director
Council on Hotel, Restaurant and Institutional Education (CHRIE)
1200 17th Street, NW, Washington, DC 20036-3097
phone: 202-331-5990, fax: 202-785-2511, email: alliance@access.digex.net

Retail Trade
Kathryn J. Mannes, Education Coordinator
National Retail Federation (NRF)
Liberty Place, 325 7th Street NW, Suite 1000, Washington, DC 20004
phone: 202-783-7971, 202-626-8110 (direct line), fax: 202-737-2849

Other Occupational Skill Standards Projects available on the NSSB web site: Advanced High Performance Manufacturing; Agriscience Biotechnology; Air Conditioning, Heating, and Refrigeration; Automobile, Autobody, Medium/Heavy Truck Technician; Computer Aided Drafting and Design; Electrical Construction; Electronics; Grocery; Hazardous Materials Management Technology; Industrial Laundry; Metal Working; Printing; and Welding

State Skill Standards Initiatives available from the NSSB web site include links to: Alabama, California, Colorado, Illinois, Iowa, Louisiana, New Hampshire, Oregon, Tennessee, Texas, Vermont, and Washington

Skill Standards Ordering Information

Skill standards in all twenty two areas can be ordered from the following organizations. Many of the organizations are also developing instructional guides and information about assessments that will be implemented to certify students skills. A web site listing of skill standard projects is also available at **http://vocserve.berkeley.edu/skillstandard.html**

Skill Standards Organization Information	Ordering Information
Advanced High Performance Manufacturing National Coalition for Advanced Manufacturing (NACFAM) 1331 Pennsylvania Avenue NW Suite 1410 North Washington, DC 20004 Tel: 202-216-2740 Fax: 202-289-7618	Contact organization or fifid ordering information on web site: http://www.bmpcoe.org/nacfam/
Agriscience Biotechnology National FFA Foundation P.O. Box 15160 Alexandria, VA 22309-0160 Tel: 703-360-3600 Fax: 703-360-5524	Contact organization for ordering information
Air Conditioning, Heating, and Refrigeration V-TECS, Southern Association of Colleges and Schools 1866 Southern Lane Decatur, GA 30033-4097 Tel: 800-248-7701 Fax: 404-679-4556	Contact organization for ordering information
Automobile, Autobody, Medium/Heavy Truck Technician National Automotive Technicians Education Foundation (NATEF) 13505 Dulles Technology Drive, Suite 2 Herndon, VA 22071-3421 Tel: 703-713-0100 Fax: 703-713-0727	Contact organization for ordering information
Bioscience Bioscience Industry Skills Project 55 Chapel Street Newton, MA 02158-1060 Tel: 617-969-7101 Fax: 617-332-4318	Contact the Education Development Center, P.O. Box 1020 Sewickley, PA 15143-1020 Tel: 800-793-5076 Fax: 412-741-0609
Chemical Process Technicians Resources/Education American Chemical Society 1155 16th Street NW Washington, DC 20036 Tel: 202-872-8734 Fax: 202-872-8068	Contact organization at 800-227-9919 for ordering information
Computer Aided Drafting and Design (CADD) National Coalition for Advanced Manufacturing (NACFAM) 1331 Pennsylvania Avenue NW Suite 1410 North Washington, DC 20004 Tel: 202-216-2740 Fax: 202-289-7618	Contact organization or find ordering information on web site: http://www.bmpcoe.org/nacfam/

Skill Standards Organization Information	Ordering Information
Electrical Construction National Electrical Contractors Association (NECA) 3 Bethesda Metro Center Suite 1100 Bethesda, MD 20814 Tel: 301-215-4512 Fax: 301-215-4500	Contact organization for ordering information. Fax credit card orders to: 301-215-4545
Electronics American Electronics Association 5201 Great America Parkway Box 54990 Santa Clara, CA 95056 Tel: 800-284-4232	Contact organization for ordering information
Electronics Technicians Electronic Industries Association/CEMA 2500 Wilson Blvd. Arlington, VA 22201-3834 Tel: 703-907-7670	Order from the Consumer Electronics Manufacturers Association/CEMA-EIF Department 287 Washington, DC 20055 Tel: 703-907-7670 Fax: 703-907-7968
Grocery Grocers Research and Education Foundation (GREF) 1825 Samuel Morse Drive Reston, VA 22090 Tel: 703-437-5300 Fax: 703-437-7768	Contact organization for ordering information
Hazardous Material Management Technology Center for Occupational Research and Development (CORD) 601 Lake Air Drive Waco, TX 76710 Tel: 817-772-8756 Fax: 817-772-8972	Contact CORD Communications for ordering information at 800-231-3015, P.O. Box 21206, Waco, TX 76702-1206 (order reference is HAZMAT-IMP-GD)
Health Care WestEd 730 Harrison Street San Francisco, CA 94107-1242 Tel: 415-241-2712 Fax: 415-241-2702	Contact Publications at WestEd Tel: 415-565-3044 Fax: 415-565-3012
Heavy Highway Construction Laborers-AGC Education and Training Fund P.O. Box 479 27055 Kingston, WA 98346 Tel: 360-297-4152 Fax: 360-297-3368	Contact organization for ordering information
Hospitality and Tourism Council on Hotel, Restaurant and Institutional Education (CHRIE) 1200 17th Street, NW Washington, DC 20036-3097 Tel: 202-331-5990 Fax: 202-785-2511	Contact organization for ordering information

Skill Standards Organization Information	Ordering Information
Human Services Human Services Research Institute 2336 Massachusetts Avenue Cambridge, MA 02140 Tel: 617-876-0426 Fax: 617-492-7401	Contact the organization for ordering information. Orders can be faxed to 617-492-7401.
Industrial Laundry Uniform and Textile Service Association 1300 North 17th Street, Suite 750 Rosslyn, VA 22209 Tel: 703-247-2608 Fax: 703-841-4750	Contact organization for ordering information
Metalworking National Institute for Metal Working Skills 2209 Hunter Mill Road Vienna, VA 22181 Tel: 703-255-5886 Fax: 703-938-4342	Contact organization or find ordering information on web site: http://www.nims-skills.org/
Photonics Center for Occupational Research and Development 601 Lake Air Drive Waco, TX 76710 Tel: 817-772-8756 or 800-972-2766	Contact organization for ordering information
Printing National Council for Skill Standards in Graphic Communications 206 Lafayette Center Kennebunk, ME 04043 Tel: 207-985-9898 Fax: 207-985-6347	Contact the order department Graphic Arts Technical Foundation 200 Deer Run Road Sewickley, PA 15143-2328 Tel: 412-741-6860, 800-910-4283 Fax: 412-741-2311
Retail Trade National Retail Federation Liberty Place 325 7th Street NW Suite 1000 Washington, DC 20004 Tel: 202-783-7971 Fax: 202-737-2849	Contact the organization for ordering information at 800-NRF-HOW2, attention Publications
Welding American Welding Society 550 NW LeJeune Road Miami, FL 33126 Tel: 305-443-9353 Fax: 305-443-7559	Contact the organization for ordering information at 800-334-9353 or at their web site http://www.aws.org

Building Linkages Project–NSSB Contact: Laura Pfalzer

In collaboration with the U.S. Department of Education's Office of Vocational and Adult Education and the National School-to-Work Opportunities Office, the NSSB is sponsoring a project to coordinate skill standards with both academic standards and school-to-work efforts. For this initiative, groups of school-to-work implementation states have joined

together in consortia to explore the integration of academic and industry-based skill standards with the state career pathway systems. Each consortium will develop materials for educators and employers, multiple assessments, and certification recommendations.

Consortium I: Health Care

State Lead: Utah, State Office of Education (in conjunction with New Jersey)
Contact: Mr. Scott Hess, School-to-Work Coordinator, 801-538-7850
Other states: Arizona, California, Colorado, Florida, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, New York, New Jersey, North Carolina, Oklahoma, Tennessee, Texas, Utah, and West Virginia (others may have joined, information from the 1996 NSSB Report to Congress)

Consortium II: Manufacturing

State Lead: Indiana, Department of Workforce Development
Contact: Terry Fields, 317-232-1829
Web site: http://www.mfglinks.org
Other states: Arizona, Hawaii, Idaho, Illinois, Indiana, Kentucky, Maryland, Michigan, Nebraska, Oklahoma, and Pennsylvania (others may have joined, information from the 1996 NSSB Report to Congress)

Consortium III: Business/Management

State Lead: Oregon Workforce Quality Council
Contact: Sharon McFarland, Project Director, Far West States Standards Project, 503-391-7430
Other states: California, Oregon, Washington, and Indiana

Section 2
ACADEMIC SKILL STANDARDS

Frameworks for standards by academic discipline have been developed by a variety of national organizations and have begun to define what students should be able to master at different grade levels or grade clusters. Information about the standards and, in most cases, the standards developed by each of the following organizations are available on their web sites.

National Council of Teachers of Mathematics (NCTM)
1906 Association Drive, Reston, VA 20191-1593
phone: 703-620-9840, fax: 703-476-2970
http://www.nctm.org

National Academy of Sciences, National Research Council (NAS)
2102 Constitution Avenue, NW, Washington, DC 20418
phone: 202-334-2000
http://www.nas.edu/nrc

National Council of Teachers of English (NCTE)
1111 West Kenyon Road, Urbana, IL, 61801
phone: 217-328-3870 or 800-369-6283, fax: 217-328-9645
http://www.ncte.org

International Reading Association
http://www.reading.org

National Council for the Social Studies (NCSS)
3501 Newark Street, NW, Washington, DC 20016
phone: 800-653-0812 (publications)
http://www.ncss.org

National Center for History in the Schools, UCLA (310-825-8388)

Center for Civic Education
5146 Douglas Fir Road, Calabassas, CA 91302-1467
phone: 818-591-9321, fax: 818-591-9330
http://www.civiced.org

Section 3
OTHER STANDARDS RESOURCES

U.S. Department of Labor **http://www.dol.gov**
Employment and Training Administration **http://doleta.gov**
O*NET The Occupational Information Network
Training Technology Resource Center **http://www.ttrc.doleta.gov**

U.S. Department of Education **http://www.ed.gov**
Goals 2000 **http://www.ed.gov/G2K**
Academic & Skill Standards **http://www.ed.gov/G2K/standard.html**

National School-to-Work Office **http://www.stw.ed.gov**
400 Virginia Avenue SW, Room 210, Washington, DC 20024
phone: 202-401-6222 or 800-251-7236

National Education Goals Panel **http://www.negp.gov**
1255 22nd Street, NW Suite 502, Washington, DC 20027
fax: 202-632-0957 or 202-632-1032
The National Education Goals Panel (NEGP) is an independent executive branch agency of the federal government created in July, 1990 by the Goals 2000: Educate America Act. The Panel is a bipartisan body that includes eight governors, four members of Congress, four state legislators, and two administration officials. In addition to reporting on national and state progress toward the National Education Goals, the Panel has sponsored an initiative called Goals 3-4-5 Implementation that focuses on student achievement, teacher education and training, and high achievement in math and science. The Panel has formed an advisory group, commissioned papers to examine progress toward implementation, and formed partnerships with organizations nationwide. Additional information about this project, the commissioned papers, and links to the partnership organizations are available on the NEGP web site.

National PTA **http://www.pta.org**
phone: 312-670-6782
The National PTA has worked with National Education Goals Panel to develop Parent Involvement Standards.

Eisenhower National Clearinghouse for Mathematics and Science Education
phone: 800-362-4448 (catalog) **http://www.enc.org**
The Office of Educational Research and Improvement's clearinghouse for K-12 curriculum materials and resource in mathematics and science education.

Developing Educational Standards **http://putwest.boces.org/standards.html**
An annotated list of Internet sites with K-12 educational standards maintained by the Putnam Valley Schools, Putnam, NY. This site includes a thorough selection of standards related websites and is sorted by government agencies, organizations, newspapers, magazines, and standards and frameworks by subject area and by state.

New Standards Project **http://www.ncee.org**
A joint project of the National Center on Education and the Economy, a non-profit in Washington, DC and the University of Pittsburgh's Learning Research and Development

Center to develop an internationally benchmarked system of standards for English/language arts, math, science, and applied learning at the elementary, middle, and high school levels.

International Society for Technology in Education (ISTE)
1787 Agate Street, Eugene, OR 97403-1923 **http://www.iste.org**
phone: 541-346-4414, fax: 541-346-5890
A teacher-based nonprofit organization in the field of education technology whose mission is to help K-12 classroom teachers and administrators share effective methods for enhancing student learning through the use of new classroom technologies. ISTE recently released a set of national standards for student technology skills which includes a list of competencies that student should develop by the time they enter grades 2, 5, 8, and 12.

Learning First Alliance **http://www.learningfirst.org**
An alliance of major national educational organizations dedicated to improving student learning in America's public schools. The Alliance's goals include ensuring that high academic expectations are held for all students, ensuring a positive and supportive place of learning for all students, and engaging parents and community members in helping students achieve high academic expectations.

Institute for Educational Leadership **http://www.iel.org**
1001 Connecticut Avenue NW, Suite 310, Washington, DC 20036
phone: 202-822-8405, fax: 202-872-4050
IEL's mission is to improve individual lives and society by strengthening educational opportunities for children and youth.

Vocational Technical Education Consortium of the States (V-TECS)
1866 Southern Lane, Decatur, GA 30033 **http://www.mindspring.com/~vtecs/**
phone: 404-679-4501, ext. 543 or 800-248-7701, fax: 404-679-4556
Develops industry guides and curriculum frameworks, standards, and assessment components based on the requirements of industry. V-TECS has published skill standards for Administrative Support Occupations and Heating, Air-conditioning, and Refrigeration Technicians.

Integrated System for Workforce Education Curricula (ISWEC)
Center for Occupational Research and Development (CORD)
Walt Edling **http://www.cord.org/iswec/iswec.htm**
601 Lake Air Drive, Waco, TX 76710-5841
phone: 800-972-2766
email: wedling@cord.org
A collaborative project with CORD and many states to develop a system of integrated curricula and teaching methods including career clusters, standards, assessment, and an integrated curriculum framework. CORD also sponsors the National Tech Prep Network (**http://www.cord.org/ntpn.htm**) and the Tech Prep/School-to-Work Index and Improvement Program, an evaluation program developed with the Gallup Organization as a tool for local and regional Tech Prep and School-to-Work leaders to use in identifying and evaluating components of a successful program or system. (**http://www.cord.org/stw1.htm**).

SCANS2000 Program **http://infinia.wpmc.jhu.edu**
Arnold Packer
Johns Hopkins University Institute for Policy Studies
Wyman Park Building, 5th Floor, 3400 North Charles Street, Baltimore, MD 21218
fax: 410-516-4775
Interdisciplinary research group with projects related to school-to-work and education reform. Programs include SCANS and Assessment, SCANS and the Arts, SCANS and Math Education, SCANS and Community Colleges, SCANS and Middle Schools, SCANS and Work-based Learning, and SCANS and Standards (WorkPlus Certificate).

Council of Chief State School Officers **http://www.ccsso.org**
State Collaborative on Assessment and Student Standards (SCASS)
Edward Roever
One Massachusetts Avenue, NW, Suite 700, Washington, DC 20001-1431
phone: 202-408-5505
The CCSSO is sponsoring a project designed to assist states as they develop student standards and assessments. The project supports an assessment consortium where state curriculum, assessment, and content specialists develop frameworks in various content areas (currently literacy, the arts, guidelines for performance assessment, and workplace readiness). The project also supports the development of standards and assessments through pooled resources and effort among consortium states and will be linked to national standards in each area.

National Governors Association **http://www.nga.org**
Center for Best Practices (Workforce Development) **http://www.nga.org/CBP/**
Employment and Social Services Division
Evelyn Ganzglass
444 North Capitol Street, Suite 267, Washington, DC 20001-1512
phone: 202-624-5400
The Employment and Social Services Division works with states to identify, share, and implement best practices in their welfare and workforce development systems. The web site includes information about these programs and access to various NGA publications.

Achieve, Inc. **http://www.achieve.org**
Achieve is a non-profit organization whose mission is to assist Governors and business leaders in their efforts to improve student achievement to world class levels through the development and implementation of high academic standards, assessments, and accountability systems and the effective use of technology to achieve standards. The organization's web site supports a National Clearinghouse database for researching standards-based education reform which includes statements of educational standards produced by states and national professional organizations.

American Vocational Association **http://www.avaonline.org**
1410 King Street, Alexandria, VA 22314
phone: 800-826-9972

National Center for Research in Vocational Education, Institute on Education and the Economy, Teachers College, Columbia University
Tom Bailey, phone: 212-678-3091 **http://www.tc.columbia.edu/~iee**

Center for Research on Evaluation, Standards, and Student Testing (CRESST) **http://www.cse.ucla.edu**
University of California at Los Angeles, 1339 Moore Hall, 405 Hilgard Avenue,
Los Angeles, CA 90024
phone: 310-206-1530
An Office of Educational Research and Improvement-sponsored consortium that works with state and local partners in providing information about improving assessment and instructional practices.

Section 4
STANDARDS FOR TEACHERS

Teacher Licensing and Professional Development

Council of Chief State School Officers **http://www.ccsso.org/intasc.html**
Interstate New Teacher Assessment and Support Consortium (INTASC)
Jean Miller, Director
One Massachusetts Avenue, NW, Suite 700, Washington, DC 20001-1431
phone: 202-336-7048
INTASC is a consortium of state education agencies, higher education institutions, and national educational organizations dedicated to the reform of the education, licensing, and on-going professional development of teachers. Created in 1987, INTASC's primary constituency is state education agencies responsible for teaching licensing and professional development. The consortium's mission is to promote standards-based reform through the development of model standards and assessments for beginning teachers.

Certification of Advanced Teaching Skill and Accomplishment

National Board for Professional Teaching Standards (NBPTS)
26555 Evergreen Road, Suite 400, Southfield, MI 48076 **http://www.nbpts.org**
phone: 248-351-4444, fax: 298-351-4170
NBPTS is an independent, nonprofit, nonpartisan organization governed by a 63 member board of directors whose mission is to establish high and rigorous standards for what accomplished teachers should know and be able to do; to develop and operate a national, voluntary system to assess and certify teacher who meet these standards; and to advance related education reforms for the purpose of improving student learning in American schools.

Accreditation of Schools, Colleges, and Departments of Education

National Council for Accreditation of Teacher Education
2010 Massachusetts Avenue NW, Suite 500, **http://www.ncate.org**
Washington, DC 20036-1023
phone: 202-466-7496, fax: 202-296-6620
NCATE is a coalition of 33 specialty professional associations of teachers, teacher educators, content specialists, and local and state policy makers which through the process of professional standards-based accreditation of schools, colleges, and departments of education works to ensure the quality of teaching and teacher preparation. NCATE supports a State Relations Initiative to provide several ways for the organization to collaborate with the States. NCATE has 41 partnerships with states to conduct joint reviews of schools of education. A State Partnership Directory is provided on the organization's web site.

Section 5
VOCATIONAL STUDENT ORGANIZATIONS

DECA **http://www.deca.org**
1908 Association Drive, Reston, VA 20191-1594
phone: 703-860-5000, fax: 703-860-4013
A national association of marketing students that provides teachers and members with educational and leadership development activities to merge with the education classroom instructional program.

Technology Student Association (TSA) **http://www.tsawww.org**
1914 Association Drive, Reston, VA 20191-1538
phone: 703-860-9000, fax: 703-758-4852
A national association of elementary, middle, and high school technology education students.

FHA/HERO **http://www.fhahero.org**
1910 Association Drive, Reston, VA 20191-1584
phone: 703-476-4900, fax: 800-636-8646
A national association with 230,000 members whose goal is to build strong leaders in family, career, and community.

National FFA **http://www.ffa.org**
6060 FFA Drive, Indianapolis, IN 46268-0960
phone: 317-802-6060, fax: 317-802-6061
A national association with 450,000 members who are developing leadership, personal growth, and career success through agricultural education. The web site also includes links to other organizations including **http://www.agriculture.com** which includes a Teachers Workroom and the National Association of Agricultural Educators (**http://www.naae.org**).

Vocational Industrial Clubs of America (VICA) **http://www.vica.org**
P.O. Box 3000, Leesburg, VA 20177-0300
phone: 703-777-8810, fax: 703-777-8999
A national organization serving nearly 250,000 high school and college students and professional members who are enrolled in training programs in technical, skilled, and service occupations, including health occupations. Web site includes links to the *Skills USA Championships*.

Future Business Leaders of America-Phi Beta Lambda (FBLA-PBL)
1912 Association Drive, Reston, VA 20191-1591 **http://www.fbla-pbl.org**
phone: 703-860-3334, fax: 703-758-0749
A national organization of students to develop leadership in business, government, and communities. Web site also includes links to the National Business Education Association (**http://nbea.org**) and the Business Professionals of America (**http://www.bpa.org**).

Health Occupations Students of America (HOSA) **http://www.hosa.org**
6021 Morriss Road, Suite 110, Flower Mound, TX 75028
phone: 800-321-HOSA, fax: 972-874-0063
A national association of vocational students whose mission is to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people.

Section 6
BIBLIOGRAPHY

Bailey, Thomas and Donna Merritt, "Industry Skill Standards and Education Reform," American Journal of Education, Volume 105, No. 4, 401-436.

Bailey, Thomas and Donna Merritt. Making Sense of Industry-Based Skill Standards, National Center for Research in Vocational Education, University of California, Berkeley, 1995.

Bailey, Thomas, Integrating Academic and Industry Skill Standards, Institute on Education and the Economy, Teachers College, Columbia University, National Center for Research in Vocational Education, University of California, Berkeley, MDS 1001, December, 1997.

Kendall, John S. and Robert J. Marzano. Content Knowledge: A Compendium of Standards and Benchmarks for K-12 education. Mid-Continent Regional Educational Laboratory, Aurora, CO, 1996. Can be ordered from ASCD at 800-933-2723.

Klein, Steven G. Applying the Standard: Using Industry Skill Standards to Improve Curriculum and Instruction: Lessons Learned from Early Implementation in Four States, MPR Associates, Berkeley, CA, 1996.

Klein, Steven G. Skill Standards: Concepts and Practices in State and Local Education: A Synthesis of Literature and Alternative Conceptual Frameworks, MPR Associates, Berkeley, CA, 1996.

Murnane, R. J. and Levy, F., Teaching the New Basic Skills: Principles for Educating Children to Thrive in a Changing Economy, The Free Press, New York, NY, 1996.

National Skill Standards Board, 1996 Report to Congress (October 1995 to January 1997), available on the NSSB web site at **http://www.nssb.org/bg/REPORT.HTML.**

Performance Assessment Systems: Implications for a National System of Skill Standards, Training and Employment Program, Employment and Social Services Policy Studies, Consortium for Policy Research in Education, National Governors Association, Washington, DC, 1994.

Vickers, M., *Reconnecting Education and Career: Problems and Solutions*, in A. Stenberg, editor. Real Learning, Real Work, Routledge, New York, NY, 1997.

Wirt, John G. and Lynn Resnick, editors. Linking School and Work: Roles for Standards and Assessment, Jossey Bass, San Francisco, 1996.